

### Summary

The invention describes a method and a device for the continual and, in particular, for a fast detection of changes of the concentration of radon gas dissolved in water by means of a transfer into a measuring gas (Rn-222), which can be adopted for a variety of monitoring, control and regulation assignments.

The invention is based on the fact that a membrane, which is permeable for the radioactive noble gas radon but extensively non-permeable for water, is circum-flushed on the one side of radon-containing water and on the other side of the carrier gas with, in each case, optimised flow velocities either in parallel or in counter-flow

When stable peripheral conditions are ensured, the concentration of radon in the measuring gas is directly proportional to the concentration of radon in the water.